Nobel Prize

January 19, 1960

Professor U. S. von Euler
Chairman, The Nobel-Committee
Caroline Institute
Stockholm 60, Sweden

Dear Professor von Euler:

I am happy to acknowledge the invitation from your committee to nominate candidates, for your consideration, for the Nobel Prize in Physiology or Medicine. In my small speech the evening of December 10, 1958 I referred to the 'difficulty of singular choice': when I consider the problem of doing this even for just a nomination, I am deeply impressed by the effort that must be entailed in making a final choice. With your permission, then, may I submit in nomination two names which I believe to be worthy of your consideration:

Professor Sir MacFarlane Burnet of Melbourne, Australia

and

Professor Peter B. Medawar of London, England.

Many other worthy candidates are doubtless in your minds for careful scrutiny, and such names readily occur to mine as well. The conviction that underlies my present submission is that these men have made outstanding contributions to Physiology, as I understand the use of this term, that have already had, and will continue to have, the most profound impact on the scientific bases of medical practice.

On accompanying sheets, I have endeavored to support these nominations with some additional details. Since I am sure that many of your colleagues will already be quite familiar with the personal history and scientific contributions of these men, I will not enlarge the documents with information already conveniently available to you.

With best personal regards,

Yours cordially,

Joshua Lederberg
Professor of Genetics

1-19-1960

Nomination of

Peter Brian Medawar

b. Feb. 28, 1915. Educated in England (M.A., D.Sc. Oxon.)
Since 1951, Professor of Zoology at University College, London.

Medawer's outstanding contribution has been the experimental demonstration of induced immune tolerance by the inoculation of unborn mice with tissues from animals of other strains. After birth and maturation these mice would accept grafts of skin and other tissues from the same foreign strains; ordinarily such homografts are promptly rejected. Medawar and his colleagues have also furnished much decisive evidence to favor the proposition that the rejection of homotransplanted tissues is an immunological phenomenon.

These studies, which are still quite recent, have been immensely provocative of further experimental studies in the field of transplantation. They are also fundamental observations for any comprehensive biological theory of immunity (as, for example, the clonal selection theory advanced by Burnet). From a practical standpoint, the phenomenon of induced tolerance furnishes the principal basis for optimistic efforts at rational use of homotransplanted tissues as a surgical procedure, and in replacement therapy in the treatment of cancer and of radiation injuries.

Two questions will undoubtedly arise in this evaluation. One is that Medawar has been associated with several co-investigators in these studies, and their relative contributions must be sorted out. The second is that not all of his studies have had such a constructive outcome, for example, those dealing with "infective transformation" of non-pigmented cells in guinea-pig skin, purportedly by granules endowed with hereditary continuity and derived from pigmented cells; also the premature identification of the homograft antigens with DNA, rather than mucoids of the cells' surfaces as now appears more likely. The Committee will doubtless give careful study to these considerations. For my own part, the importance of Medawar's main contribution far outweighs the detriment of these evidences of human fallibility; further, while giving due and ample credit to his colleagues, Medawar's role stands out clearly in my own view.

In sum, I would be proud to be associated with either or both of the candidates herewith submitted.

Medawar's work is amply reviewed in the following summaries:

Billingham, R.E. and Medawar, P.B. 1950 Pigment spread in mammalian skin: serial propagation and immunity reactions. Heredity, 4: 141-164.

Medawar, P.B. 1958 The homograft reaction. Proc. Roy. Soc. London, B148: 145-166.

Medawar, P.B. 1957 The immunology of transplantation. Harvey Lectures, 1956-57: p.144. (Academic Press, New York).

Joshua Lederberg